

OREGON AND WASHINGTON DEPARTMENTS OF FISH AND WILDLIFE
JOINT STAFF REPORT – FALL FACT SHEET NO. 7
Columbia River Compact/Joint State Hearing
October 11, 2017

Fisheries under consideration:	Above Wauna recreational sturgeon Willamette River recreational sturgeon (Oregon Action)
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Detailed information on stock status and management guidelines for Columbia River fisheries are presented in Joint Staff Reports, which are produced annually and available on-line. The most recent relevant report is the 2017 Joint Staff Report Concerning Stock Status and Fisheries for Sturgeon and Smelt (January 30, 2017) located at: <http://wdfw.wa.gov/fishing/crc/> or <http://www.dfw.state.or.us/fish/OSCRP/CRM/reports.asp>.

WHITE STURGEON STOCK STATUS

Two alternative methods of estimating abundance of white sturgeon in the lower Columbia River (LCR) are considered; the first is based on the analysis of mark-recapture data and the second is based on the relationship between setline CPUE and mark-recapture derived abundance estimates. Recent abundance estimates of legal-size fish (38-54 inches fork length (FL)) based on mark-recapture data declined to a low of 72,700 fish in 2012 but have since increased. The 2015 legal-sized abundance estimate was 143,900 fish which increased to 224,000 in 2016; the projected abundance for 2017 is 237,900.

Alternatively, a more conservative estimate based on the relationship between year-specific research setline catch rates of legal-size white sturgeon and mark-recapture abundance estimates (using data from years 2010-2015) would be 155,900 fish for 2016 with a projection of 165,600 for 2017.

Modeling of future recruitment to legal size results in slight net growth in legal-sized abundance from 2016 to 2020 under a no-harvest scenario, and progressively decreasing abundance projections as harvest rates are increased.

Abundance metrics for other size categories of white sturgeon in the lower Columbia River are currently mixed. The abundance of adult-sized fish (≥ 66 inches FL or 72 inches total length) appears to be increasing, with the 2014-16 average abundance (4,230) exceeding the Oregon White Sturgeon Conservation Plan (WSCP) conservation status threshold (i.e. a running 3-year average of 3,900 adults). However, LCR sub-yearling production has remained low for the 7th consecutive year, while production has improved in the lower Willamette River.

MANAGEMENT GUIDELINES

- For years when white sturgeon retention is allowed downstream of Bonneville Dam, current Commission guidance on white sturgeon management assumes:
 - A 10% conservation buffer will be utilized if the maximum harvest rate (16%) identified in WSCP is utilized.
 - Recreational fisheries are allocated 80% of the white sturgeon available for harvest and commercial fisheries are allocated 20%.

2017 WHITE STURGEON FISHERIES

- Due to the decline of legal-size fish and other indicators of population status during 2008-2012, retention fisheries downstream of Bonneville Dam were closed during 2014-2016.
- Angler participation decreased by over 90% following the retention closures.
- In late winter of 2016/17, staff provided updates on the LCR white sturgeon status to the Columbia River Advisor groups; support for a retention fishery from the Advisor groups was mixed. Staff also provided updates on stock status to both OR and WA commissions early in the year. Public testimony at the commission meetings requested support for a small-scale estuary-area fishery (Columbia River mouth to the Wauna powerlines) in the spring of 2017, based on the recent increasing trend for legal-size white sturgeon.
- Input from a public meeting held in late May provided support for small-scale retention fisheries in 2017, including fisheries in the area upstream of the Wauna powerlines and in the Willamette River. Also in late spring, both commissions were briefed on potential harvest guidelines and an approach for a small-scale 2017 estuary retention fishery and provided support for the re-initiation of limited retention fisheries.
- Subsequently, staff evaluated options for retention fisheries, with an initial focus on opportunity in the estuary area. Potential for retention fisheries in the area between Wauna powerlines and Bonneville Dam (i.e. "Above Wauna") and the lower Willamette River were to be considered in the fall of 2017. This approach allowed for a fishery in the popular estuary area in a productive timeframe while providing an opportunity to evaluate preliminary results from the 2017 stock assessment prior to setting fisheries for the other areas.
- To maintain a precautionary approach to re-initiating sturgeon retention fisheries, staff assumed the following when modeling 2017 fisheries:
 - Applied the most conservative 2017 legal-size abundance forecast.
 - Standardized the legal slot for all LCR fisheries to 44-50 inches to facilitate management and provide immediate escapement of larger-size white sturgeon by excluding them from harvest.
 - Modeled a conservative 3.8% harvest rate on 44-50 inch fish (equivalent impact to broodstock escapement of a 4.5% harvest rate on the traditional 38-54 inch size slot).
 - Used the previous harvest allocation distribution for recreational fisheries: 48% Estuary, 20% Above Wauna, and 12% in the lower Willamette River.
- Based on an abundance projection for 2017 of 165,600 legal-size fish, a total of 6,235 white sturgeon would be available for harvest downstream of Bonneville Dam.

Estimated Legal Abundance	165,600
2017 Harvest Guideline	6,235
Commercial (20%)	1,245
Recreational (80%)	4,990
Columbia R. Estuary	3,000
Columbia R. Above Wauna	1,245
Lower Willamette R.	745

Recreational White Sturgeon Fisheries

Estuary Fishery

- Earlier this year, the states of Oregon and Washington adopted a white sturgeon retention fishery for the Columbia River estuary to occur during the first two weeks of June.
- The 2017 Estuary white sturgeon retention fishery consisted of five days during June 5-14. Effort was substantially higher than expected (14,844 trips observed compared to 8,510 expected), requiring in-season action to rescind the final scheduled day (June 17). The kept catch was 3,235 fish, or 108% of the 3,000 fish guideline.
- It is anticipated that the 2018 Estuary guideline will be reduced to account for the overage (235 fish) from the 2017 fishery.

Above Wauna Powerlines Fishery

- Given the harvest guideline, expected high effort, and limited recent-year fishery information, modeling assumptions for a fall 2017 above Wauna fishery include:
 - A days-per-week approach to slow cumulative catch and provide staff the opportunity to review fishery performance on a weekly basis.
 - A narrower legal size slot (44-50 inch FL) to reduce catch rates relative to a broader size slot.
 - Daily effort will be higher than the average observed in the most recent years a retention fishery occurred in October (2009-11), as a result of effort shift due to fewer retention days.
 - The timing of the fishery would occur sometime during the second half of October.
- Although predicting the results of a sturgeon retention fishery in this area is confounded by multiple issues (lack of recent fishery data, higher abundance of legal-sized fish, a modified size slot, and unknown effort), staff views the following fishery proposal as a reasonable approach for re-opening this fishery.

<i>Recommendation: 2017 Wauna-Bonneville Dam Recreational Sturgeon Fishery</i>		
Season:	Saturday, October 21	1 day
	Thursday, October 26	1 day
Area:	Mainstem Columbia River from the Wauna powerlines upstream to Bonneville Dam.	
Allowable Catch:	Up to 1,245 legal-sized white sturgeon. Retention of green sturgeon is prohibited.	
	Legal size: 44-inch minimum and 50-inch maximum fork length	
	(Fork length is measured in a straight line from the tip of the nose to the fork in the caudal fin (tail) with the fish laying on its side on a flat surface, with the tape measure/ruler positioned flat under the fish).	
	Daily bag limit: One fish	
	Annual bag limit: Two fish (applicable to any/all 2017 retention fisheries)	

- Model outputs for this fishery vary significantly depending on what assumptions (e.g. legal-size slot, abundance estimate, fishing effort) are made. Modeled scenarios indicate the fishery would be unlikely to exceed the available guideline in less than two retention days. The duration of the retention season will likely need to be adjusted if catch rates and effort are much different than projected.
- Given the wide difference between the two methods used to estimate abundance within the proposed legal slot (setline CPUE = 60,500, mark-recapture = 86,900), staff used the average (~74,000) as the basis for projecting harvest expectations. This results in an expected kept catch of 1,050 white sturgeon (84% of the guideline) for the recommended fishery.
- Actual kept catch per day may be less than projected which could allow for consideration of additional retention days following completion of the proposed fishery.
- Per permanent regulations, catch and release fishing is allowed all year.

Lower Willamette River

- Given observed kept catches of 770–1,190 sturgeon per day for the lower Willamette River during 2012-2013 and expected high effort, designing a fishery that does not exceed the 2017 harvest guideline (745 fish) is very difficult.
- Staff considered various alternatives to moderate harvest including reduced hours, reduced boat fishing area, and a narrower slot limit.
- Based on current modeling, prosecuting a single-day lower Willamette River fishery with limited risk of exceeding the available guideline would require multiple constraints such as a noon closure, boat angling restricted to downstream of Fremont Bridge, and a concurrent opening with the mainstem retention fishery, and a narrower slot (46-50 inch fork length).
- Given the complications of prosecuting a one-day retention fishery given the available harvest guideline, Oregon staff is not recommending a 2017 retention fishery for the lower Willamette River.

FUTURE MEETINGS

- The Joint Staff will recommend additional hearings as needed.